AMC Pamphlet 25-31

Information Management:

Preparation of Plans for Technical Publications Verification

U.S. Army Materiel Command
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UNCLASSIFIED

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PREPARATION OF PLANS FOR TECHNICAL PUBLICATION VERIFICATION

Page

CHAPTER 1. Introduction

Purpose 1-1
References 1-1
Explanations and Abbreviations 1-1
Policies and Procedures 1-1
Types of Technical Publications Verification 1-2
Planning Technical Publications Verification 1-2
Technical Publications Verification as a Separate Event 1-6
Technical Publications Verification Combined with Other Events 1-6
Technical Publications Verification of Commercial Off-the-Shelf (COTS) Manual Supplements 1-8
Publication Concurrence Sheet for Verification 1-8

CHAPTER 2. Typical Technical Publication Verification Plan

Section I. Introduction 2-1
Section II. Participating Agencies 2-1
Section III. Verification Team 2-1
Section IV. Contractor Support 2-2
Section V. Government Support 2-3
Section VI. Coordination Meeting 2-3
Section VII. Technical Publications Verification 2-3
Section VIII. Target Audience Personnel 2-7
Section IX. Final Report 2-8

CHAPTER 3. Typical Plan for Combined Validation/Verification of Technical Publication

Section I. Introduction 3-1
Section II. Participating Agencies 3-1
Section III. Government Team 3-1
Section IV. Contractor Support 3-2
Section V. Facilities and Materials 3-2

*This pamphlet supersedes AMC-P 25-31 dated 15 Nov. 1991

Page

Section VI. Coordination Meeting 3-3
Section VII. Validation Methods 3-3
Section VIII. Validation Performance 3-4
Section IX. Validation Acceptance/Rejection Criteria 3-4
Section X. Validation Forms, Records and Reports 3-4
Section XI. Milestones and Schedules 3-5
Section XII. Government Verification 3-5
Section XIII. Target Audience Personnel 3-5
Section XIV. Final Report 3-5

CHAPTER 4. Typical Plan for Technical Publication Verification during Developmental Testing (DT)/Operational Testing (OT)
Section I. Introduction 4-1
Section II. Participating Agencies 4-1
Section III. Verification Team 4-2
Section IV. Contractor Support 4-2
Section V. Government Support 4-3
Section VI. Coordination Meeting 4-3
Section VII. Technical Publications Verification 4-3
Section VIII. Developmental Testing/Operational Testing 4-6
Section IX. Milestones and Schedules 4-6
Section X. Final Report 4-6

CHAPTER 5. Typical Plan for Verification of a Supplement to a Commercial Off-The-Shelf (COTS) Manual
Section I. Introduction 5-1
Section II. Participating Agencies 5-1
Section III. Verification Team 5-2
Section IV. Contractor Support 5-2
Section V. Coordination Meeting 5-3
Section VI. Verification 5-3
Section VII. Milestones and Schedules 5-4
Section VIII. Final Report 5-4

Appendix
References Appendix-1

Table List
Factors To Be Considered in Planning/Selecting Type of Verification ..... Table 1-1

Figure List
Publications Concurrence List ..... Figure 1

Glossary Glossary-1

CHAPTER 1
INTRODUCTION

1-1. **Purpose.** This pamphlet is presented as an aid to Army personnel or employees charged with verification of technical publications. Verification planning is required by AR 25-30, The Army Publishing Program. This pamphlet discusses planning for verification of technical publications and offers four typical verification plans: one for a separate verification, two for verification combined with other integrated logistics support (ILS) events (validation of technical publications and Developmental Tests/Operational Tests (DT/OT)), and one for verification of material supplementing a commercial off-the-shelf (COTS) manual. This pamphlet is an aid for preparing technical manual verification plans.

1-2. **References.** Appendix lists required and related publications.

1-3. **Explanations and Abbreviations.** The glossary explains abbreviations and terms used in this pamphlet.

1-4. **Policies and Procedures.**

a. Policies.

(1) Equipment proponents must verify all new or revised publications, including supplements to COTS manuals acquired to support COTS items. Commercial off-the-shelf manuals are considered to have been validated by public acceptance and use with the manufacturer's equipment, but must be 100 percent verified either by hands-on performance by target audience personnel (preferred) or desktop review. The decision on acceptability of these COTS manuals shall be fully coordinated between the U.S. Army Materiel Command (AMC) proponent and the using agency (e.g., the U.S. Army Training and Doctrine Command (TRADOC)). COTS manuals shall be evaluated using MIL-HDBK-1221, DOD Handbook for Evaluation of Commercial Off-the-Shelf (COTS) Manuals, before any contractually binding decision is made on their use. Material developed to supplement COTS manuals will be validated and verified.

(2) A 100 percent verification of all procedures will be performed either hands on by target personnel (preferred) or desktop review. There is no assumption that simple tasks can be performed. Each task must be proven to be accurate and useable through the verification process.

(3) Verification will consist of performing operating and maintenance procedures using target audience personnel expected to use and maintain the equipment when deployed. For each procedure verified hands on, one successful iteration will be performed.

(4) In any verification of a manual, the proponent must verify 100% of the preventive maintenance checks and services (PMCS) hands-on by having target audience personnel do each check. In addition, each PMCS check must be verified for proper sequencing (i.e., a minimum amount of time and motion is used without crew members interfering with each other). For

verification, each PMCS step must be performed successfully once. This requirement applies to PMCS tables for COTS items as well as developmental materiel.

(5) Usability will be considered equally as important as technical accuracy. In addition to verifying the technical accuracy of the data in an Interactive Electronic Technical Manual (IETM), the usability will also be verified (e.g., can target audience personnel load the IETM easily, navigate through it, find necessary data without difficulty, etc). Do not preload the IETM for verification or prepare computer equipment for loading. Loading should be part of the verification process for the IETM and should reflect conditions the users will have in the field (e.g., other IETMs, earlier versions, etc).

(6) The technical publications proponent is responsible for providing guidance to the contractor and for review, verification, and acceptance of deliverable products.

b. Procedures. Sample plans giving suggested procedures for the different types of verification are given in Chapters 2 through 5. The sample plans are designed to cover the requirements of complex items/systems. They may be tailored by the responsible agency to meet equipment requirements. Drafts of the verification plan will be furnished for comment to agencies with primary interest. The final plan will be furnished to primary agencies and agencies with special interests in order that they may plan for their participation.

1-5. **Types of Technical Publications Verification.** Five types of technical publications verifications can be performed. They are:

a. Technical publications verification as a separate event.

b. Verification combined with technical publications validation.

c. Verification combined with DT/OT.

d. Verification of COTS manuals and supplements.

e. Verification combined with Logistics Demonstration (LD) - Only if production configuration equipment is used for LD.

1-6. **Planning Technical Publications Verification.**

a. Early planning is not only basic but vital to a technical publications verification plan. Planning is required to comply with AR 25-30, which says the Commanding General (CG) AMC will "ensure that for contractor-developed technical and equipment publications the contract defines the roles of the contractor and the Army in validation and verification requirements." Thus, verification planning should start before the contract is written, to integrate verification with the rest of the technical publications plan and the ILS plan (AR 700-127). For technical publications verification integrated with DT/OT, planning should be coordinated with the outline test plan, event design plan, and detailed test plan (AR 73-1). Early planning also aids better

coordination of technical publications verification with interested agencies, including TRADOC/depot, for requesting target audience troops.

b. Review and revise the verification plan to keep it current. Some factors of the plan often affected by changes are:

(1) Major changes in acquisition strategy which can be critical to technical publications verification. Such changes may make the proponent adjust or reselect the type of verification. The responsible agency may have to select another method after planning for a given method has progressed somewhat.

(2) Date and extent of availability of the preliminary technical publication (PTM).

(3) Availability of Verification Performers. The verification will be accomplished using target audience personnel expected to use and maintain the equipment when deployed as identified by TRADOC/depot. All performance of tasks will be monitored by experienced government subject matter experts (SMEs).

(4) Date and extent of availability of the production configuration equipment. Prior to contract award, the proponent should coordinate with the contractor to ensure that equipment is available for verification. The equipment availability date may change often during development and the verification date may have to change accordingly. Equipment may be available full-time or only part-time because of tests or other activities which must be performed.

(5) Date and availability of common and special tools; test, measurement, and diagnostic equipment (TMDE), including automatic test equipment (ATE) with the associated test program sets (TPS), and built-in test (BIT); and, as required, calibration equipment. Proponent will coordinate with the appropriate agency/contractor to ensure that this equipment is on hand and available at the verification site to support the effort.

(6) Verification Site and Facilities (Government or Contractor). When time allotted for verification is short for any reason, technical publications verification may have to be moved to another site or facility to complete the work.

(7) Time Available for Verification. This often varies widely before development is complete. Initial study of the development cycle should show what time frame is available for verification. Lack of available time is no excuse for failure to produce a fully verified publication.

c. Pay attention to the development schedules of any new support equipment required by the program. This includes TMDE, ATE with the associated TPS, and BIT; calibration equipment; special tools and special-purpose kits for winterization, desert, or tropical employment; mounting of weapons, etc. Changes in availability dates may require changes in the verification plan.

d. Coordinate with interested agencies (including the equipment contractor) as early as possible and keep them informed throughout the equipment development.

e. AR 25-30 requires the use of production configuration equipment for verification. The proponent should ensure a production configuration of the equipment is reserved for verification. Use of a prototype model to verify publications will not produce a 100 percent verified manual. To complete the verification, the proponent will have to make arrangements to use a production model at another time and place.

f. The verification process is historically time-consuming. Apart from being subject to change from program redirection, time must be managed closely to prevent avoidable delays. Planning must take into account logistics management information (LMI) task times and maintenance allocation chart (MAC) times when these become available.

g. Technical publications verification ordinarily requires some degree of contractor support. The amount of this support shall be determined as early as possible in the life of the contract.

h. Table 1-1 presents some factors to be considered when planning for or selecting the type of verification to be used.

Factors to Considered in Planning/Selecting Type of Verification

Factor:

Yes No

Time:

Time Available?
Time Limits?
Alternate time set up if production equipment not available?

Funding:

Available?
TDY for Publications Manager?
TDY for Equipment Specialist?
TDY for User representatives?
TDY for PM representative?
TDY for TRADOC representative?
TDY for LOGSA?
TDY for Security representative?
TDY for Safety representative?

Space (site & facilities):

Contractor?
Government?
Alternate place set up if production equipment not available?

Personnel:

Government team?
Contractor?
Security?
Safety?
User?

Equipment, tools, TMDE:

Production configuration equipment?
Support equipment?
System support package available?
Tools?
Test equipment?

Documentation:

Validated Manuals?
Verification Plan?
Forms, records, and reports?
Schedule?
Accept/reject/resolution criteria?
Concurrence sheets?

Table 1-1. Factors

i. Coordinate each of the following agencies as required for each type of verification:

(1) AMC Life Cycle Management Commands (LCMC)

(2) U.S. AMC Logistics Support Activity (LOGSA)

(3) Surface Deployment and Distribution Command (SDDC)

(4) Product/Program/Project Manager's Office (PMO)

(5) Service Schools

(6) TRADOC

(7) Contractor

(8) Depot

Also for verification combined with Technical Test II/User Test II (TTII/UTII):

(1) Test and Evaluation Management Agency (TEMA)

(2) Test and Evaluation Command (ATEC)

1-7. **Technical Publications Verification as a Separate Event.** A team representing the proponent and interested AMC agencies will work with interested agencies and target audience personnel to verify all operating and maintenance procedures using a production end item. TRADOC/depot is responsible for furnishing target audience personnel on request. The PM is responsible for furnishing the facilities, tools & test equipment, production configuration equipment, and travel expenses for target audience personnel. See Chapter 2 for a typical plan.

1-8. **Technical Publications Verification Combined with Other Events.**

a. Combined Validation/Verification (See Chapter 3).

(1) Combined validation/verification is the least preferred method. It is time-consuming and places the responsibility of the effort on the Government, not the contractor. The combination is usually difficult contractually and requires close and continuing coordination with the contracting officer or plant representative and the contractor. When the agency with logistics responsibility considers combining technical publications verification with validation, it is usually due to compressed development.

(2) If target audience personnel are not scheduled or available, there must be a clear understanding between Government agencies and the contractor on who is to perform the target

audience personnel tasks: Government civilian personnel, contractor technicians, or contractor-hired civilians. A TRADOC/depot SME must observe task performance. See Chapter 3 for a typical plan for combined validation/verification.

b. Combined Verification and LD. AR 25-30 requires production configuration equipment be used for verification. LD normally uses prototype equipment per AR 73-1. Verification can only be combined with LD if production configuration equipment is used for the LD.

c. Verification Combined With DT/OT (See Chapter 4). Before detailed planning of this type of verification, the logistics manager responsible for publications will reach an agreement with testing agencies on what will and will not be done to verify publications during DT/OT. This includes:

(1) Actions of technical publications verification observers while equipment is being operated and maintained during DT/OT.

(2) Hours that equipment will be available during DT/OT to perform technical publications task verifications.

(3) Adequate facilities (work area, office space and furniture, telephone service).

(4) Availability of end item of equipment to be used during verification.

(5) Tools and support equipment (common and special tools and support items, including tool sets/kits/outfits authorized to maintain the item or its auxiliary equipment or authorized to the MOS(s) doing the work).

(6) Expendable supplies and materials.

(7) Schedule of events for DT/OT and technical publications verification. This shall be a single master schedule as far as the two events can be joined.

(8) Agreement on whether the equipment undergoing test may be disassembled for verification of technical publications maintenance tasks, aside from any unscheduled maintenance required in the normal course of DT/OT.

(9) Confirmation that the equipment has been reserved at the DT/OT site for an agreed upon time after completion of DT/OT. This time will be used to complete verification of technical publications tasks.

(10) Availability and use of DT/OT military personnel for task verification, if that is desired.

(11) System support package.

(12) Arrangement for target audience personnel housing, messing, etc., if target audience personnel are to verify technical publications tasks. Arrangements for target audience personnel control at the verification site. See Chapter 4 for a typical plan for verification during DT/OT.

1-9. **Technical Publications Verification of COTS Manual Supplements.**

a. Although the preferred method of verification is having target audience personnel do all procedures on a production item, the proponent usually does not have the time needed when working with a COTS manual supplement. The need for quick completion is probably the most common element in any verification of supplements. Almost always, the fielding date of the commercial item is the prime factor. This governs the date that the proponent LCMC must include verified supplements with the COTS manuals being issued with equipment. COTS verification requires the proponent command publications representatives to coordinate closely with the PMO, appropriate TRADOC schools, depot, or other offices responsible for logistics acquisition. See Chapter 5 for typical plan for verification to a COTS manual.

b. Options in verification of COTS manual supplements include:

(1) Complete performance of all procedures.

(2) Verification of procedures for selected components.

(3) Verification of procedures for selected tasks.

(4) "Desk-top" verification of procedures.

(5) Government witnessing of validation of contractor-prepared supplementary data.

c. In general, the proponent command publications representative will face the same problems noted in paragraph 1-8a above, with the added problem of little time. Continuing, intense coordination with the responsible logistics manager and interested agencies will produce verified supplementary data for issue with the materiel.

1-10. **Publication Concurrence Sheet for Verification.** A publication concurrence sheet is required for each publication at verification (see Figure 1). The following agencies/agency representatives are required to sign the publication concurrence sheet to indicate verification is complete and satisfactory; however the technical publications representative is the final acceptance/rejection decision authority and can be overridden only by evident factors indicating safety violations:

a. Publications manager/representative

b. Equipment Specialist Representative

c. Target Audience Representative

d. TRADOC/depot Representative

e. Contractor Representative (if present)

f. Security Directorate Representative (if present)

g. Safety Office Representative

h. Product Assurance Directorate Representative (if present)

i. LOGSA Representative (if present)

j. Other Representatives (if present)

PUBLICATIONS CONCURRENCE SHEET

DATE: _____

SUBJECT: Concurrence for

_____

Subject publication has been reviewed and verified, in its entirety, by the following signs and concurrences and comments have been made in accordance with AR 25-30. Signatories marked with "*" are mandatory, all others are optional.

This publication is technically accurate, adequate, usable, and is assigned the proper security classification, and conforms to regulations which govern the preparation of Department of Army (DA) publications.

_____

Publications Representative*

I (concur) (non-concur) in the safety and maintenance philosophy of the publication and that the publication accurately reflects the source data (with) (without) comments.

_____

Equipment Specialist Representative*

I (concur) (non-concur) that the content of the publication is adequate to operate and perform maintenance on the equipment and that it meets user requirements (with) (without) comments.

_____

Target Audience Representative*

I (concur) (non-concur) that the content of the publication is adequate to operate and perform maintenance on the equipment and that it meets training requirements (with) (without) comments.

_____

TRADOC/Depot Representative*

I have reviewed the comments and will incorporate them, as stated, into the publication. No change will be made to the publication unless approval is given by appropriate government personnel.

_____

Contractor Representative

I (concur) (non-concur) that this publication conforms to operational security (OPSEC) requirements (with) (without) comments.

_____

Security Directorate Representative

I (concur) (non-concur) that this publication includes all safety requirements and conforms to safety regulations.

_____

Safety Office Representative *

I (concur) (non-concur) in the product assurance and associated provisions contained in the publication (with) (without) comments.

_____

Product Assurance Directorate Representative

I (concur) (non-concur) that this publication meets specifications requirements.

_____

LOGSA Representative

_____

Other

Article I.

Article II. Remarks: Detailed comments shall be included on DA Form 2028. However, the publications representative may, at his/her discretion, accept selected comments on marked up manuscript to the publication.

Figure 1. Publications Concurrence Sheet.

CHAPTER 2
TYPICAL TECHNICAL PUBLICATION VERIFICATION PLAN

Front Matter. Cover with date, number(s) of publications to be verified, item nomenclature, preparing agency, and contractor's name and contract number. Table of contents with section number, title, and page number.

Section I. Introduction.

2-1. **General.** Scope of verification.

2-2. **Purpose and Objectives.**

2-3. **Provisions/Clauses.** As appropriate, include a summary of pertinent contract provisions/clauses. List any limitations which must be imposed on this effort (time permitting only verification of certain vital tasks, funding, unavailability of any tools/test equipment, limited space available, number of personnel from interested agencies, etc.). Verification efforts will be preceded by a coordination meeting to consolidate Government comments. State whether more than one end item will be available and whether multiple shift operations are being considered.

Section II. Participating Agencies.

2-4. **Agencies With Primary Interest.** List the agencies with primary interest. State whether each agency will have a member voting on the verification team in case verification of a task is not agreed on unanimously. Invite each interested responsible LCMC to take part.

2-5. **Agencies With Special Areas Of Interest.** List the agencies and their special areas of interest, such as Surface Deployment and Distribution Command (SDDC) for air/sea/rail transport of equipment, etc.

2-6. **Responsibilities.** Each agency is to provide subject matter experts (SMEs) as required, target audience personnel, observers, monitors, etc. State which agency will chair the effort.

Section III. Verification Team.

2-7. **Description.** List all agencies represented on the team. State areas of expertise required. If lack of time requires that more than one task be performed at a time, discuss any proposed division of team members for task observation.

2-8. **Member Responsibilities.** According to the pre-established verification concept, target audience personnel, or Government civilians perform tasks selected for verification. In certain circumstances, the Government may require the work to be done by contractor technicians.

Observers and monitors watch task performance and check for accuracy, completeness, and consistency with the MAC and repair parts and special tools list (RPSTL), plus conformance to the requirements of any agencies with special areas of interest.

2-9. **Notification of Meetings.** The agency chairing the effort will notify interested agencies at least 15 days before the meeting, giving the location, technical publications or portion(s) to be verified, proposed working hours, areas of emphasis, whether Government quarters are available (if the effort will be on a Government installation), telephone numbers of points of contact (commercial and Defense Switched Network (DSN)), etc.

2-10. **Visitors/Observers.** State any special policies on or responsibilities of visitors (persons not members of the team). The chairing agency may decide to restrict visitors' activities and access to the work area. This paragraph shall outline any restrictions or other special provisions concerning visitors.

Section IV. Contractor Support.

2-11. **Description.** The Government may require the contractor to support the verification effort. Any such requirements shall be contractual. Carrying out these contract terms and conditions will require close and continuing coordination with the contracting officer and/or Government plant representative. This paragraph shall state arrangements which have been made (or are to be made) to obtain all needed support. If technical publication verification is at a site(s) other than the contractor's plant, state requirements for contractor shipment of the equipment, reprocessing, getup at other site(s), any reprocessing for further shipment, etc.

2-12. **Responsibilities.** List contractor support responsibilities which may include:

a. Facilities: work area and storage space, adequate lighting, restrooms, parking, a vacant area which may be used as a holding area for target audience personnel, adequate office space, and telephone service with a line "outside" the contractor's plant.

b. Plant Equipment: work tables, benches, lift trucks, winches/hoists/traveling cranes, etc.

c. Office Equipment: desks, chairs, file cabinets, personal computers, telephones, office copier, paper, miscellaneous small supplies, etc.

d. Personnel: Verification task performers, if not provided by the Government and technical personnel to serve as advisers to the Government effort.

e. End item of equipment and any auxiliary equipment/TMDE, including ATE with the associated TPS and BIT equipment being made or purchased by the contractor for this end item.

f. Technical Assistance. State whether contractor technical personnel are to:

(1) Reprocess the end item, prepare it for operation, and maintain it during technical publications task verification.

(2) Set up the equipment for individual tasks by placing the equipment in the status prescribed in the task's initial setup. This could require equipment partial disassembly, getting electrical switches and circuits in prescribed states, etc.

(3) Prepare the equipment for shipment, if required, after completion of verification.

(4) Provide repair parts, tools, kits, expendable supplies, and components to support verification.

(5) Provide publications support by changing task text and illustrations to correct tasks found to be inadequate or in error.

Section V. Government Support.

2-13. **Responsibilities.** If the technical publications verification is to be conducted at a Government installation, responsibility for facilities, plant and office equipment will shift from contractor to government. List these responsibilities by participating agencies (PMO, TRADOC, depot, LOGSA, LCMCs (publications, maintenance, etc.)), as well as any other items (specific tools, support equipment, and TMDE items) which are government's responsibility. With this listing, requirements for support of the technical publications verification should be completely covered.

Section VI. Coordination Meeting.

2-14. **General.** Before the start of any verification work, the agency chairing the effort will call a coordination meeting for representatives of all government agencies with primary and special areas of interest. Invite contractor(s) to send representatives, as required. Use teleconferencing whenever possible to reduce travel costs. The publications manager will briefly review the verification process and responsibilities of participants, in addition to conducting a desk review of the PTM.

Section VII. Technical Publications Verification.

2-15. **Verification Methods:**

a. Desk (table-top) review.

b. Hands-on verification.

c. Simulation.

d. Combination of two or more of the above.

2-16. **Desk (Table-Top) Review.**

a. Maintenance Manuals.

(1) Coordination Meeting. Initial desk review will be performed by the proponent LCMC and other participating/interested agencies prior to the coordination meeting.

(a) Proponent should send out the manuscript for review at least 30 days before the coordination meeting. Agencies represented at this meeting are expected to hand-carry their comments. Others may mail, data fax, or electronically mail (e-mail) comments to the proponent for review and inclusion in the master copy of the technical publications.

(b) Before the scheduled review, the chairing agency will call a meeting to coordinate comments from agencies taking part in the verification. The meeting should be held at the hands-on verification site for easy reference to the equipment (which should be in place). Comments agreed upon will be annotated in the verification master copy and performer's copies before the hands-on verification.

(2) Points of Review.

(a) Front matter and appendixes.

(b) Operating and maintenance instructions.

(c) Checklists.

(d) Illustrations.

(e) Schematics and wiring data.

(f) Descriptive data and theory of operation.

(g) Components of end item (COEI), basic issue items (BII), additional authorization list (AAL), and Expendable and Durable Items List.

(h) Application of reliability-centered maintenance (RCM) strategy to PMCS.

(i) Correlation of the MAC, RPSTL, and maintenance instructions for sequence, proper maintenance level, corrects nomenclature, and mutual support.

(j) Review the RPSTL against the narrative manual and maintenance allocation chart (MAC) for proper source, maintenance, and recoverability (SMR) codes.

(k) Review all products for conformance to content and requirements of applicable specifications.

(3) Markup of Master Copy. The Government publications element will maintain a master copy of the manuscript containing all approved Government comments made during desk review. This marked up master becomes the basis for providing corrective comments to the contractor.

(4) Reconciliation of changes. The technical representative and the contractor technical writer will reconcile all manual changes at the close of each day of verification. Decisions will be made as to whether any area needs repeat verification or referral to engineering personnel for further technical clarity. No operations will be left open.

b. RPSTL. The RPSTL should be reviewed during the desk review of its companion maintenance manual(s). This review should make sure:

(1) SMR codes are correct and complete.

(2) Section I - Introduction paragraphs are correct and complete.

(3) All repair parts are illustrated.

(4) RPSTL artwork is compatible with maintenance manual artwork.

(5) National stock numbers (NSN) are assigned to items which should have them.

(6) Part numbers, commercial and government entity (CAGE) codes, nomenclatures, and quantities are accurate.

2-17. **Hands-On Performance.**

a. Schedule. Set the schedule plan (e.g., an 8-hour day, 5-day week, first and last days of effort are travel time, etc.). Attach specific schedule(s) as appropriate.

b. Performance Requirements.

(1) State what will and will not be done. Explain who on the team can approach the task performance area.

(2) Note that troubleshooting will ordinarily require special instructions. State how to treat verification of troubleshooting trees/processes. Preferably, troubleshooting tasks should be performed before disassembly/repair tasks because of possible damage to equipment during tear down. This also agrees with the maintenance logic process of troubleshoot, disassemble, repair, assemble, and test.

(3) There will be no destructive teardown to create faults for troubleshooting or maintenance. Use an appendix to list nondestructive faults to be inserted in the equipment for troubleshooting. For guns/weapons, there is usually no live firing.

c. Target Audience Personnel Briefing. If target audience personnel or other performers are to be used to verify procedures, present a briefing covering: the purpose of the verification; administrative instructions; safety; assurance of target audience personnel that the test is of the publication, not them; how tasks will be verified; and how/when to ask for help with the task.

d. Maintenance of the Equipment. Often, the equipment will require maintenance during the verification. State what agency (Government or contractor) is responsible for this maintenance, to include a return to ready-for-issue condition.

e. Procedure. State the procedure verification is to follow. The target audience personnel or other person(s) doing the work is expected to:

(1) Receive the task assignment.

(2) Read the procedure.

(3) Secure any items (tools, equipment, TMDE, and mandatory replacement parts) cited in the set-up portion of the task.

(4) Perform the task.

(5) Perform any required follow-on tasks.

(6) All (100 percent) operating and maintenance procedures, including PMCS, lubrication, and troubleshooting, will be performed with no information other than that contained in the task at hand and the manual for any TMDE. There will be no coaching unless personnel safety or potential damage to equipment is imminent. During procedure performance, the designated SME cross-checks RPSTL, MAC, technical publications appendixes, schematics, supply catalogs of tool sets/kits/outfits, etc., for accuracy and appropriateness.

f. Troubleshooting Performance. This usually begins with insertion of a nondestructive fault. The target audience personnel are told there is something wrong with the equipment, referred to the manual's troubleshooting instructions (or the master symptoms list, if one is included in the manual) to start a troubleshooting task, and are instructed to locate the fault. The target audience personnel then try to locate the problem, using any authorized test equipment. (With aircraft, missile, and some combat vehicle troubleshooting, fault insertion breakout boxes are used to simulate faults.)

g. Use of Target Audience Personnel. If target audience personnel do the task verification, the TRADOC/depot SME usually assigns target audience personnel to perform tasks to prevent deliberate test bias, such as could occur if above-average target audience personnel were assigned all the difficult tasks and below-average target audience personnel were assigned all easy tasks. An SME should record task assignments and watch the order in which target audience personnel perform tasks. If desired, the SME (or if so agreed, the contractor) will obtain setup items and perform setup conditions so the target audience personnel need not do so.

2-18. **Simulation.** Simulation is to be used in lieu of actual performance of a procedure only when the equipment would be damaged or live firing of weapons would be required, and then only when approved by the contracting activity by its approval of the verification plan.

2-19. **Combination.** As required, the above methods may be used in any combination approved by the contracting activity and agreed to by interested agencies.

2-20. **Rejection Criteria.** State the standards by which a task may be rejected. Also, state proposed methods of attempting to resolve problems with tasks before rejection. This statement should set out how long the contractor has (in minutes) to rework the problem task before it must be sent back to the main writing facility. The decision to reject should reflect a consensus. If a consensus cannot be reached, the publications manager decides. (Preferences of the technicians performing the verification shall not be cause for rejection.)

a. Team members, target audience personnel, and contractor personnel may recommend revision of a task if such revision will eliminate unnecessary work, cut performance time, eliminate extra tools, enhance safety, or otherwise significantly improve task performance. Recommendations are to be made to the team leader who will assess the recommendation and coordinate it within the verification team for disposition.

b. Usually, a procedure is rejected when it cannot be performed without a major rewrite or illustration revision (major errors of procedure or configuration/cannot be understood), because of incompleteness, potential safety hazard, or because it would involve damage to equipment.

2-21. **Handling of Rejected Material.** State the process for rework of any rejected material. Usually a rejected task will be returned to the contractor (at the verification site or to the contractor's facility) with a statement of what is wrong. The contractor is to return the reworked material within a previously agreed upon timeframe. The reworked material will be verified. If time does not permit recertification at the verification site, the contractor shall provide a certificate of validation for the rejected material with delivery of the final reproducible copy (FRC).

2-22. **Forms, Records, and Reports.** State what forms are to be used to record verification of tasks, comments, and completion of the verification process. Refer to an appendix in the verification plan for samples.

Section VIII. Target Audience Personnel.

2-23. **Description.** If this section is used, describe target audience personnel by MOS and title or by skill and experience level. Description is to be obtained from the proponent TRADOC school or depot and is generally an extract of DA PAM 611-21, giving for each MOS:

a. MOS number and title.

b. Physical qualifications and aptitude area.

c. Level of military experience.

d. Skills and knowledge.

2-24. **Qualifications.** State in brief whether target audience personnel have completed advanced individual training (AIT) for MOS assigned, whether they have received any training on the equipment covered by the technical publications being verified, and if their rotation through this group will coincide with availability of other target audience personnel completing AIT and becoming eligible for temporary duty as target audience personnel.

Section IX. Final Report.

2-25. **Procedure**. When verification is complete, the chairing agency will prepare a final report listing:

a. Publications verified.

b. Any portions of tasks not verified, with reasons.

c. Findings of verification (e.g., easily verified by target audience personnel, many tasks had maintenance level changed, a number of tools had to be changed to other tools, certain TMDE was not available so certain troubleshooting procedures were not verified, etc.).

d. Conclusions/lessons learned.

e. Recommendations. The report will be provided for concurrence to all agencies having a voting member on the team. The publications manager also may wish to have the marked-up master copy signed or initialed on the cover by representatives of all such agencies. This will serve as indication of concurrence and positive identification of the master copy. A copy of the final report will be provided to the contractor.

f. Appendixes. Appendix letters will be assigned by the preparing activity.

(1) Appendix ____. Verification schedules. List by technical publication.

(a) Equipment covered, by proper nomenclature and NSN.

(b) Personnel to verify procedures. Target audience personnel, military skilled technicians, Government civilian mechanics, contractor personnel, or a combination. If military, give MOS and skill level required.

(c) Tasks to be verified. List should include all operator's maintenance and troubleshooting tasks. If possible, index tasks to the appropriate MOS, tools, test equipment, and location in the technical publication.

(d) Validated technical publications due to the Government on: (insert date).

(e) Desk review begins (insert date) and closes (insert date).

(f) Coordination meeting (insert date) to (insert date).

(g) Verification (insert date) to (insert date), inclusive.

(2) Appendix ____. Forms, records, and reports. Provide samples of all forms, records, and reports to be used during technical publication verification.

(3) Appendix ____. Contractual regulatory requirements (if desired). List the military specifications (and any amendments) called out by the contract for preparing the publications to be verified. List by number, date, and title. If the contract cites other regulatory documents concerning the publications, cite these as well.

(4) Appendix ____. Waivers to regulatory requirements (if desired). List waiver letters, agreements on technical publication style, minutes of in-process reviews citing directions to the contractor, and other material influencing development of the technical publications series involved. Avoid including unnecessary material.

(5) Appendix ____. Government-furnished material. List any tool sets/kits/outfits; common or special tools or equipment; TMDE; and any other Government property provided to the contractor for this verification. If the item or material will be used by target audience personnel/technicians during verification, mark the line with an asterisk.

CHAPTER 3
TYPICAL PLAN FOR COMBINED VALIDATION/VERIFICATION OF TECHNICAL PUBLICATION

Front Matter Cover with date, equipment nomenclature, contractor's name and contract number, and agency preparing the plan. Table of contents with section number, title, and page number.

Section I. Introduction.

3-1. **General.** Scope of validation/verification.

3-2. **Purpose and Objectives.**

3-3. **Provisions/Clauses.** As appropriate, include a summary of pertinent contract provisions/clauses. List any limitations which must be imposed on this effort (time-permitting only verification of certain vital tasks, funding, unavailability of any tools/test equipment, limited space available, number of personnel from interested agencies, etc.). Verification efforts will be preceded by a coordination meeting to consolidate Government comments. State whether more than one end item will be available for validation/verification of tasks and whether multiple-shift operations are being considered.

Section II. Participating Agencies.

3-4. **Agencies With Primary Interest.** List the agencies with primary interest. State whether each agency will have a member voting on the team in case verification of a task is not agreed to unanimously. Invite each interested responsible LCMC to take part.

3-5. **Agencies With Special Areas of Interest.** List the agencies and their special areas of interest, such as SDDC for air/sea/rail transport of equipment, etc.

3-6. **Responsibilities.** Each agency is to provide SMEs as required, target audience personnel (if they are to perform validation/verification), observers, monitors, etc., which agency will chair the effort (normally, the proponent command publications representative).

Section III. Government Team.

3-7. **Description.** The proponent Government agency (AMC LCMC, etc.) publications element chairs the team. Agencies with primary interest (LCMC, TRADOC, service schools, depot, LOGSA, etc.) provide SMEs, technical writers, illustrators, and other members, as appropriate. Primary interest agencies will ordinarily have a vote on the team. Agencies with special areas of interest (such as the SDDC, etc.) should provide SMEs and observers, as required, and ordinarily will not have a vote on the team.

3-8. **Member Responsibilities.** TRADOC/depot furnishes target audience personnel for the effort on request if the request concerns TRADOC/depot related manuals and was made far enough in advance for scheduling target audience personnel. All team members and observers are expected to witness task validation and verification and comment, if appropriate, to resolve technical or publications problems.

3-9. **Notification of Meetings.** The agency chairing the effort will notify interested agencies at least 15 days before the meeting, giving the location, technical publications or portion(s) to be verified, proposed working hours, areas of emphasis, whether government quarters are available (if the effort will be on a Government installation), telephone numbers of points of contact (commercial and DSN), etc.

3-10. **Visitors/Observers.** State any special policies on or responsibilities of visitors (persons not members of the team). If the effort is being conducted on an accelerated schedule, the chairing agency may decide to restrict visitors' activities and access to the work area. This paragraph shall outline any restrictions or other special provisions concerning visitors.

Section IV. Contractor Support.

3-11. **Description.** The Government may require the contractor to support the verification part of the effort. Any such requirement shall be contractual. Carrying out these contract terms and conditions will require close and continuing coordination with the contracting officer and/or Government plant representative. This paragraph shall state the arrangements which have been made (or are to be made) to obtain all needed support. If technical publications validation/verification is at a site(s) other than the contractor's plant, state requirements for contractor shipment of the equipment, deprocessing, setup at other site(s), any reprocessing for further shipment, etc.

3-12. **Contractor Responsibilities.** As required by contract, the contractor will distribute copies of publications to be validated/verified, provide technical assistance through SMEs/writers/illustrators, site(s) for validation and verification, repair parts support, tools, equipment, correction of draft publications as required (spell out in detail), conducting or performing validation as required, etc. If validation/verification is at a site(s) other than the contractor's plant, state requirements for shipment, deprocessing, and set up of the item.

Section V. Facilities and Materials.

3-13. **Contractor Responsibility.** Refer to paragraph 2-12.

3-14. **Government Responsibility.** Again, depending on the contract and the Government's intended method of verification, list facilities and materials to be furnished by the Government. This list should not complement and complete the contractor responsibility list so neither validation nor verification is affected by a lack of facilities or materials.

Section VI. Coordination Meeting.

3-15. **General.** Before the start of any verification work, the agency chairing the effort will call a coordination meeting for representatives of all Government agencies with primary and special areas of interest. Invite contractor(s) to send representatives, as required. Use teleconferencing whenever possible to reduce travel costs. The publications manager will briefly review the verification process and responsibilities of participants, in addition to conducting a desk review of the PTM.

Section VII. Validation Methods.

3-16. **Hands-On Performance.** State that operating and maintenance procedures, including PMCS, lubrication and troubleshooting, will be performed with no other information than that given in the PTM. No participation or coaching by a monitor or other verification team member will be permitted before or during task performance, unless personnel safety or potential equipment damage is involved.

3-17. **Desk (Table-Top) Review.** Review all material for conformance to content and format requirements of applicable military specifications. This includes:

a. Front matter and appendixes.

b. Operating and maintenance instructions.

c. Checklists.

d. Illustrations

e. Schematics.

f. Wiring diagrams/wire run lists.

g. Descriptive information/theory of operation.

h. Indexes.

i. COEI.

j. BII.

k. AAL.

l. Expendable and Durable Items List.

m. Application of RCM strategy to PMCS.

n. Correlation of the maintenance instructions, MAC, and RPSTL for sequence, proper maintenance level, correct nomenclature, and mutual support.

o. Review the RPSTL, MAC, and maintenance instructions for proper SMR codes of repair parts.

3-18. **Simulation.** Simulation is to be used in lieu of actual performance of a procedure only when the action would create a safety hazard or equipment would be damaged, and then only when approved by the contracting activity by its acceptance of the validation plan and schedule.

3-19. **Combination.** As required, the above methods may be used in any mix approved by the contracting activity and agreed to by interested agencies.

Section VIII. Validation Performance.

3-20. **Description.** Set out who will accomplish validation and what skill level is required, whether contractor personnel, Government mechanics, or target audience personnel. State that a master set of draft publications will be maintained and which agency (or the contractor) will do so. Outline the path of action for correction of errors in text and illustrations. State how differences of opinion between interested agencies will be resolved and by whom. Require a safety briefing before start of validation.

3-21. **Conduct of Task Validation.** Outline the validation of a typical task. This includes a safety briefing, if necessary, locating and preparing needed tools/test equipment/expendable supplies and materials as called for by the procedure. Include warnings to stop the procedure if a safety hazard or an unsafe action is about to occur. State that the task action will be timed (for comparison with MAC times).

3-22. **Validation Criteria and Action if a Task Does Not Validate.** Give criteria for validation of tasks, including comparison of performance time with MAC-allotted time. If a task does not validate the first trial, state what the contractor is to do, including rewrite/rework of text and art and revalidation. Include provisions for on-the-spot correction of minor errors.

Section IX. Validation Acceptance/Rejection Criteria.

3-23. **Contractor Responsibility.** The contractor should have a definite set of standards for acceptance or rejection of each task. Example for full acceptance: Task is performed by the assigned person with no changes required in text or art. Tasks may be accepted after on-the-spot correction of minor errors. (Define "minor errors.") The team should reject the task when it obviously involves safety hazard or equipment damage, or when the task can't be performed without major rework. Rejected tasks are to be revised and revalidated.

Section X. Validation Forms, Records, and Reports.

3-24. **Forms.** State what contractor or Government forms will be used to record validation and verification results. Refer to the appropriate appendix.

3-25. **Records and Reports.** State what part of the contractor's organization will maintain validation records. Give the schedule by which the Government will require reports, if reports are required.

Section XI. Milestones and Schedules.

3-26. **Milestones.** Contractor's overall schedule for this validation/verification plan, beginning with the first draft of the plan, through forwarding of final reports. Incorporate Government-developed milestones.

3-27. **Schedules.** Contractor's schedules for each publication validation by start/complete dates. Reference detailed schedules in an appendix.

Section XII. Government Verification.

3-28. **Procedures.** The proponent Government agency (AMC LCMCs, etc.) publications element sets out the Government's scope of action during this effort. Depending on type of verification agreed upon by interested agencies, this effort can range from witnessing contractor validation to providing target audience personnel at the contractor's site to perform the combined validation/verification. If target audience personnel are picked to do tasks, describe how target audience personnel are rotated through this group to prevent learning build-up, etc.

Section XIII. Target Audience Personnel (if used).

3-29. **Description.** If this section is used, describe target audience personnel by MOS and title or by skill and experience level. Description is to be obtained from the proponent TRADOC school or depot and is generally an extract of DA PAM 611-21, Military Occupational Classification and Structure, giving for each MOS:

a. MOS number and title.

b. Physical qualifications and aptitude area.

c. Level of military experience.

d. Skills and knowledge .

3-30. **Qualifications.** State in brief whether target audience personnel have completed AIT for MOS assigned, whether they have had any training on the equipment covered by the technical publications being validated/verified, and if their rotation through this group will coincide with availability of other target audience personnel completing AIT and becoming eligible for temporary duty as target audience personnel.

Section XIV. Final Report.

3-31. **Procedure.** See paragraph 2-25.

CHAPTER 4
TYPICAL PLAN FOR TECHNICAL PUBLICATION VERIFICATION DURING DEVELOPMENTAL TESTS (DT)/OPERATIONAL TESTS (OT)

Front Matter. Cover with date, equipment nomenclature, contractor's name, and contract number. Table of contents with section number, title, and page number.

Section I. Introduction.

4-1. **General.** Scope of verification. State that technical publications verification will be done (at least in part) by observing target audience personnel operating and maintaining the equipment during DT/OT.

4-2. **Purpose and Objectives.**

a. Technical publications verification.

b. DT/OT.

4-3. **Provisions/Clauses.** As appropriate, include a summary of pertinent contract provisions/clauses. Cite agreements made with test agencies on technical publications verification during DT/OT. List limitations on technical publication verification (equipment available only during certain hours or days, limited site facilities, time permitting verification only of certain vital tasks, lack of target audience personnel, etc.) and any other constraints such as funding, unavailability of any tools/test equipment, deletion of tasks, number of personnel from interested/participating agencies, etc. Technical publications verification efforts will be preceded by a coordination meeting to consolidate Government comments. Say whether more than one end item will be available and whether multiple shifts are being considered. If only one end item is available, state whether verification will have to be performed after DT/OT personnel have finished with it for the day. List all waivers from specification requirements that have been authorized.

Section II. Participating Agencies.

4-4. **Agencies With Primary Interest.** List the agencies with primary interest. State whether each agency will have a voting member on the technical publications verification team in case verification of a task is not agreed on unanimously. Invite each interested responsible agency/LCMC to take part in selecting/monitoring tasks to be verified, if all tasks cannot be verified in the time allotted.

4-5. **Agencies With Special Areas of Interest.** List the agencies and their special areas of interest, such as SDDC for air/sea/rail transport of equipment, etc.

4-6. **Responsibilities.** Each agency is to provide SMEs as required, observers, monitors, etc. State which agency will chair the effort (normally the proponent command publications representative). Note special requirements generated by the conditions of verification work.

Section III. Verification Team.

4-7. **Description.** List skills required for the verification effort. If the team is to be divided into two or more groups to speed the work, state whether groups will be organized by equipment subsystems or logistics support items, or a combination. Type, size, and complexity of the end item being considered will indicate task group organization and number of members.

4-8. **Member Responsibilities.** According to the pre-established verification concept, target audience personnel or Government civilians perform tasks selected for verification. List responsibilities of team members, including technicians, equipment specialists, publications specialists, etc.

a. Observers and monitors are to watch task performance and check for accuracy, completeness, and consistency with the MAC and the RPSTL, as well as conformance to the requirements of any agency with a special area of interest.

b. Technicians are to service, inspect, remove/install items, etc.

c. Equipment and publications specialists are to observe the technician's operation, record discrepancies, and suggest proposed changes to correct problems, collect data on task performance time, and ensure conformance to specifications, etc.

4-9. **Notification of Meetings.** The agency chairing the effort will notify interested agencies at least 15 days before the meeting, naming the location, the publication(s) or portion(s) to be verified, proposed working hours, areas of emphasis, and giving any peculiar restrictions on the effort, etc.

4-10. **Visitors/Observers.** State any special policies on or responsibilities of visitors (persons not members of the team). If technical publication verification is being accelerated, the chairing agency may restrict visitors, their activities, and access to the work area. This paragraph should outline any such restrictions, or other special provisions concerning visitors.

Section IV. Contractor Support.

4-11. **Description.** The Government may require the contractor to support the technical publications verification. Any such requirement shall be contractual. Carrying out these contract provisions will require close and continuing coordination with the contracting officer, the Government agency conducting DT/OT, and appropriate commanders at the Government installation which is the site for DT/OT. This paragraph shall state arrangements which have been made or are to be made to obtain all needed contractor support.

4-12. **Responsibilities.** List contractor support responsibilities such as furnishing the SSP (less Government-furnished materials), technical assistance through SMEs, technicians, and technical support by writers and illustrators. Say whether the contractor is to furnish an end item solely for the technical publications verification. Say whether LMI is to be furnished.

Section V. Government Support.

4-13. **Responsibilities.** Since the technical publications verification/DT/OT is to be done at a Government installation, responsibility falls to the Government for facilities, plant and office equipment, expendable/durable supplies and materials, plus any portions of the SSP (specific tools, support equipment, and TMDE items). List these items. With this list, requirements for support of the technical publications verification portion of the effort should be completely covered.

4-14. **Verification Time Frame.** The testing/verification site should be reserved during the effort for enough time to do the desired work. Again, close coordination with all agencies involved will be mandatory.

Section VI. Coordination Meeting.

4-15. **General.** Before the start of any work, the agency chairing the effort will call a coordination meeting of all Government agencies with primary and special areas of interest. Invite contractor(s) to send representatives, as required. Use teleconferencing whenever possible to reduce travel costs. The publications manager will briefly review the verification process, giving any restrictions generated by the DT/OT. Also, responsibilities of participants shall be reviewed, in addition to a desk review being conducted on the PTM.

Section VII. Technical Publications Verification.

4-16. **Verification Methods:**

a. Desk (table-top) review.

b. Observation of DT/OT action.

c. Hands-on verification.

d. Simulation.

e. Combination.

4-17. **Desk (Table-Top) Review.**

a. Maintenance manuals.

(1) Consolidation of Comments. Initial desk review will be performed by the proponent LCMC and other participating/interested agencies before the meeting for consolidation of comments. Proponent should send out the manuscript for review at least 30 days before the consolidation meeting. This meeting should be held at the site of the verification/DT/OT for easy reference to the equipment (which should be in place).

(a) Agency representatives who go to the meeting ordinarily hand-carry their comments for consolidation. Other agencies may mail, data fax, or e-mail their comments to the proponent for review and inclusion in the master copy of the technical publications.

(b) Comments agreed on by agencies will be annotated in the master copy and the performers' copies before any hands-on verification of the procedures.

(2) Points of Review. Review front matter, instructions, checklists, illustrations, schematics, wiring data, descriptive data, indexes, theory, COEI, BII, AAL, Expendable and Durable Items List, application of RCM strategy, and the correlation of the MAC, maintenance instructions, and RPSTL for proper sequence, proper maintenance level, correct nomenclature, and mutual support. Review the RPSTL against the MAC and maintenance instructions for accurate SMR codes. Review all products for conformance to content and format requirements of applicable specifications.

(3) Markup of Master Copy. The chairing agency will choose an organization (usually itself or the contractor) to maintain a master copy of each publication containing all approved Government comments. This copy will become the basis for providing corrective instructions to the contractor.

(4) Reconciliation of changes. The technical representative and the contractor technical writer will reconcile all manual changes at the close of each day of verification. Decisions will be made as to whether any area needs repeat verification or referral to engineering personnel for further technical clarity. No operations will be left open.

b. RPSTL. The RPSTL for a designated level of maintenance is reviewed in the same way as its companion maintenance manual. If possible, the RPSTL should be reviewed at the same time as its companion manual.

4-18. Observation of DT/OT Action.

a. Before the start of verification work, interested agencies shall agree on which technical publications tasks can be verified by observation. The agency with logistics responsibility will generate a list which should be agreed on at the consolidation meeting. Tasks to be verified by observation shall be matched with the schedule of DT/OT by coordination with test personnel.

b. Tasks shall be observed as closely as possible within the ground rules of DT/OT. Observers must note any deviation from the technical publications procedure and try to determine the cause. If the deviation was caused by a technical problem, the procedure shall be referred to SMEs for resolution and reserved for later recertification. If the deviation was caused by misinterpretation of procedures or the personal preference of the target audience personnel, ask the target audience personnel to do the procedure exactly as written. If the procedure verifies as written, record it as approved.

4-19. **Hands-On Verification.**

a. Tasks to be Verified. Refer to the appendix containing the verification schedule.

b. Conduct of Verification. State the procedure verification is to follow. The person(s) doing the work is expected to read the procedure, secure items (tools, equipment, TMDE, and mandatory replacement parts) cited in the set-up portion of the task, do any required preliminary procedures, perform the task, and do any follow-on procedures. All operating and maintenance procedures including PMCS, lubrication, and troubleshooting, will be performed with no information other than that contained in the task at hand and the manual for any TMDE used. There will be no coaching unless personnel safety or potential equipment damage is involved.

4-20. **Simulation.** Simulation is to be used in lieu of actual performance of a procedure only when the equipment would be damaged or live firing would be required for weapons and only when approved by the contracting activity by its approval of this plan.

4-21. **Combination.** As required, the above methods may be used in any mix approved by the contracting activity and agreed to by interested agencies.

4-22. **Rejection Criteria.** Provide standards by which a task may be rejected. State proposed methods of attempting to resolve problems before rejection. This statement should set out how long the contractor has (in minutes) to rework the problem task before it must be sent back to the main writing facility. The decision to reject should reflect a consensus. If a consensus cannot be reached, the publications manager decides. (Preferences of the technicians performing the verification shall not be cause for rejection.)

a. Team members, target audience personnel, and contractor personnel may recommend revision of a task if such revision will eliminate unnecessary work, cut performance time, eliminate extra tools, enhance safety, or otherwise significantly improve task performance. Recommendations are to be made to the team leader who will assess the recommendation and coordinate it within the verification team for disposition.

b. Usually, a procedure is rejected when it cannot be performed without a major rewrite or illustration revision (major errors of procedure or configuration/cannot be understood), because of incompleteness, potential safety hazard, or because it would involve damage to equipment.

4-23. **Handling of Rejected Material.** State the procedure for rework of any rejected material. Usually a rejected task will be returned to the contractor (either at the verification site or to the contractor's technical publications work facility) with a statement of what is wrong. The contractor is to return the reworked task within a previously agreed upon timeframe. The task will then be reverified. If time does not permit reverification at the verification site, the contractor shall provide a certificate of validation for the rejected material with the FRC.

4-24. **Forms, Records, and Reports.** State what forms are to be used to record verification of tasks, comments, and verification completion. Refer to an appendix for samples.

Section VIII. Developmental Test/Operational Test (DT/OT).

4-25. **General.** These tests are separate and the responsibility of the testing agencies (usually TEMA and ATEC), which will develop and carry out plans for the tests.

Section IX. Milestones and Schedules.

4-26. **Milestones.** Include the overall schedule for this technical publications verification, beginning with the first draft of this plan and running through the forwarding of final reports.

4-27. **Schedules.** Schedule each publication verification by start/complete dates. Reference the detailed schedules in an appendix.

4-28. **Technical Publications Verification.** See paragraph 4-16.

Section X. Final Report.

4-29. **Procedure.** Refer to paragraph 2-25.

CHAPTER 5
TYPICAL PLAN FOR VERIFICATION OF A SUPPLEMENT TO A COMMERCIAL OFF-THE-SHELF (COTS) MANUAL

Front Matter. Cover with date, equipment nomenclature, contractor's name and contract number, and agency preparing the plan. Table of contents with section number, title, and page number.

Section I. Introduction.

5-1. **General.** Scope of verification.

5-2. **Purpose and Objectives.** Ordinarily, the purpose of this verification will be to prove the accuracy of information supplementing the manufacturer's operating, maintenance, lubrication, and safety instructions. The objective is to verify portions of the supplement: the MAC, any additional operating and maintenance instructions, lubrication instructions, BII, AAL, Expendable and Durable Items List, etc.

5-3. **Provisions/Clauses.**

a. As appropriate, include a summary of pertinent contract provisions/clauses. Verification of supplementary data will be preceded by a coordination meeting to consolidate Government comments.

b. List the limitations imposed on this effort by the type of acquisition (e.g., COTS) and the fielding date, the time available for verification, complexity of the equipment, degree of supplementation needed, and the established history of commercial use. If space and time available for verification dictate a 'bare-bones' approach and minimum number of participants, and TRADOC/depot concurs, so state. (The COTS manual itself is considered to have been validated by public acceptance and use.)

c. State what products are to be verified. This may include any expanded operating and maintenance instructions, the MAC, lubrication instructions, a safety summary/warning page, PMCS (shall be 100 percent hands-on), COEI/BII, AAL, Expendable and Durable Items List, cross reference lists of NSNs to manufacturer's part numbers, shipping/storage instructions, etc.

d. State whether an end item will be available for this effort. Indicate what type of verification is planned: desktop, verification of all tasks on certain items, verification only of certain tasks, or witnessing the contractor validate supplementary data that is prepared.

Section II. Participating Agencies.

5-4. **Agencies With Primary Interest.** List these. State whether each agency will have a member voting on the team in case verification of a task is not agreed to. If time available will limit the size of the verification effort, so state. As far as possible, invite each interested agency to send a representative.

5-5. **Agencies With Special Areas of Interest.** List these with area of interest for each, such as SDDC for air/sea/land transport of materiel.

5-6. **Responsibilities.** As required, each agency is to provide SMEs, observers, monitors, and target audience personnel (if they are to perform verification or if the Government has agreed to supply such target audience personnel to do validation/verification). State which agency will chair the effort (normally, the proponent command publications representative).

Section III. Verification Team.

5-7. **Description.** Refer to paragraph 3-7. Space and time constraints may limit the number of active participants. Usually, a minimum team is:

a. Proponent command publications manager (chairs the effort).

b. Proponent command equipment specialist.

c. TRADOC SME (may be from a TRADOC school) or depot representative.

d. LOGSA representative.

5-8. **Member Responsibilities.** Refer to paragraph 3-8.

5-9. **Notification of Meetings.** Refer to paragraph 3-9.

5-10. **Visitors/Observers.** Refer to paragraph 3-10.

Section IV. Contractor Support.

5-11. **Description.** If verification space and time are limited, the Government will probably require the contractor to support verification but this requirement must be contractual. Again, use of such support will need close and continuing coordination with the contracting officer. State what arrangements have been made (or must be made) to obtain all needed support.

5-12. **Contractor Responsibilities.** As required by contract, the contractor shall provide facilities, copies of material to be verified, provide technical assistance through technical experts/writers/illustrators, equipment, one or more work sites, repair parts, tools, expendable/durable supplies and materials, correction of draft materials (spell out in detail), etc. Section V, Government Support.

5-13. **Verification.** If verification is to be done at a Government installation, the Government will have responsibility for facilities and plant and office equipment. List these responsibilities, as well as other portions of verification support which are the Government's responsibilities (tools, support equipment, TMDE items, etc.).

Section V. Coordination Meeting.

5-14. **General.** If verification time is to be limited, the coordination meeting may be shortened but should be held, as abbreviated verification will make it vital to have clear understandings beforehand of what will and won't be done. Invite all agencies which must approve the verified information; make certain the contractor is also invited. Review this plan with attendees to be sure each representative knows what is expected, when events are scheduled, how publication changes will be handled, and the plan for follow-on actions and the final report.

Section VI. Verification.

5-15. **Methods:**

a. Desk review.

b. Hands-on verification.

c. Simulation.

d. Combination of the above.

5-16. **Desk (Table-Top) Review.**

a. If there has been time to send review copies of the material to interrelated agencies, these agencies should hand-carry their comments to the coordination meeting. Others may mail, data fax, or e-mail comments to the proponent for review and inclusion in the master copy of the TMs. Comments agreed upon by attendees shall be annotated in the master copy and performers' copies before any hands-on verification of procedures.

b. Review the material for accuracy, completeness, and agreement with the maintenance philosophy as shown in the MAC.

5-17. **Hands-On Performance.**

a. Limited time for verification will require a rigorous examination of tasks which are candidates for hands-on performance. The review should take into account the estimated performance times shown in the MAC. However, all PMCS tasks shall be verified hands-on. Tasks selected for performance should be listed in an appendix. Hold a safety meeting before any work is done.

b. State the procedure for task verification. Refer to paragraph 4-19b.

5-18. **Simulation.** Refer to paragraph 4-20.

5-19. **Combination.** As required, the above methods may be used in any combination approved by the contracting activity and agreed to by interested agencies.

5-20. **Rejection Criteria.** Refer to paragraph 4-22.

5-21. **Handling of Rejected Material.** Refer to paragraph 4-23.

5-22. **Form, Records, and Reports.** State what forms are to be used to record verification of tasks, comments, and verification completion. Refer to an appendix in the verification plan for samples.

Section VII. Milestones and Schedules.

5-23. **Milestones.** Lay out the overall milestone plan for this verification, beginning with the first draft of this plan and running through the forwarding of final reports. Refer to an appendix in the verification plan, if desired.

5-24. **Schedules.** Schedule the verification by start and complete dates. If desired, refer to an appendix in the verification plan.

Section VIII. Final Report.

5-25. **Procedure.** Refer to paragraph 2-25.

The proponent of this pamphlet is the United States Army Materiel Command Logistics Support Activity (LOGSA). Users are invited to send comments and suggested improvements on DA Form 2028 (Recommended Changes to Publications and Blank Forms) to Commander, USAMC Logistics Support Activity, ATTN: AMXLS-AP, Redstone Arsenal, AL 35898-5000 or e-mail to tmss@logsa.redstone.army.mil.

FOR THE COMMANDER:

//Signed//
WILLIAM E. MORTENSEN
Lieutenant General, USA
Chief of Staff

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APPENDIX
REFERENCES

Section 1. Required Publications

AR 25-30	The Army Publishing Program (Cited in paragraphs 1-1, 1-6, 1-8 and 1-10.)
AR 73-1	Test and Evaluation Policy (Cited in paragraph 1-6 and 1-8.)
AR 700-127	Integrated Logistics Support (Cited in paragraph 1-6.)
MIL-HDBK-1221	Department of Defense Handbook for Evaluation of Commercial Off-the-Shelf (COTS) Manuals (Cited in paragraph 1-4.)

Section II. Related Publications

AR 70-1	Army Acquisition Policy
AR 750-1	Army Materiel Maintenance Policy
DA PAM 611-21	Military Occupational Classification and Structure
AMC Suppl I to AR 25-30	The Army Integrated Publishing and Printing Program
MIL-STD-40051-1	Department of Defense Standard Practice, Preparation of Digital Technical Information for Interactive Electronic Technical Manuals (IETMs)
MIL-STD-40051-2	Department of Defense Standard Practice, Preparation of Digital Technical Information for Page-Based Technical Manuals

GLOSSARY

Section 1. Abbreviations.

AAL	Additional Authorization List
AIT	Advanced Individual Training
AMC	U.S. Army Materiel Command
ATE	Automatic Test Equipment
ATEC	U.S. Army Test and Evaluation Command
BII	Basic Issue Items
BIT	Built-In Test
CAGE	Commercial and Government Entity (Codes)
CG	Commanding General
COEI.	Components of End Item
COTS	Commercial Off-The-Shelf
DA	Department of Army
DSN	Defense Switched Network (formerly AUTOVON)
DT	Developmental Test
E-MAIL	Electronic Mail
FRC	Final Reproducible Copy
IETM	Interactive Electronic Technical Manual
ILS	Integrated Logistics Support
LCMC	AMC Life Cycle Management Command
LD	Logistics Demonstration
LMI	Logistics Management Information
LOGSA	Logistics Support Activity
MAC	Maintenance Allocation Chart
MOS	Military Occupational Specialty
NSN	National Stock Number
OPSEC	Operational Security
OT	Operational Test
PMCS	Preventive Maintenance Checks and Services
PMO	Product/Program/Project Manager's Office
PTM	Preliminary Technical Manual
RCM	Reliability-Centered Maintenance
RPSTL	Repair Parts and Special Tools List
SDDC	Surface Deployment and Distribution Command
SME	Subject Matter Expert
SMR	Source, Maintenance, and Recoverability (Codes)
SSP	System Support Package
TEMA	Test and Evaluation Management Agency
TMDE	Test, Measurement, and Diagnostic Equipment
TPS	Test Program Set
TRADOC	U.S. Army Training and Doctrine Command

Section II. Terms.

Validation……. The process by which a contractor (or other agency, as directed by the contracting activity) tests a technical publication for completeness, compliance with contractual requirements, and technical accuracy. It is conducted at the contractor's facility or at the operational site, and entails the actual performance of operating and maintenance procedures on the equipment for which the publication was written. Data such as stock/part numbers and SMR codes in RPSTL, hardware depiction, schematic diagrams, and wiring data contained in the publication are checked against current source data.

Verification……The process by which a technical publication is tested and proved (under Army or other Department of Defense component jurisdiction) to be adequate for the operation and maintenance of equipment procured for operational units. The preferred method for verification is performance of all operating and maintenance procedures as a separate process using both production equipment and target audience personnel of the appropriate MOS and skill level expected to use and maintain the equipment when deployed. Safety-related or mission essential operating and maintenance instructions will be physically performed on the equipment prior to issue to the field except when a procedure would be hazardous to personnel or equipment (e.g., emergency procedures for aircraft or artillery).